This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.   (Currently Amended) A method for propagating data over a network, the method comprising:

      determining a sequential first set of network addresses;

      mapping a range of addresses in the sequential first set of network addresses to a second set of addresses wherein the second set of addresses is a one to one mapping of the range of addresses in the first set and wherein the addresses in the second set are not in increasing address order, wherein the mapping comprises a function based on a primitive element selected using a primitive polynomial;

      traversing <u>a plurality of addresses in</u> the second set of addresses to find another element of the network;

      <u>dividing a set of non-traversed addresses in the second set of addresses into a plurality of subsets of addresses, each subset of addresses comprising a respective range of addresses in the second set of addresses, wherein addresses in the second set of addresses that have been traversed are excluded from the dividing step and are excluded from the subsets of addresses; and</u>

      transferring the data to the another element of the network along with an indication of at least <u>one of the subsets of addresses</u> ~~a portion of the addresses remaining in the second set by specifying a range of addresses in the second set of addresses, wherein traversed addresses of the second set of addresses are excluded from the specified range of addresses.~~

2.   (Canceled)

3.   (Previously Presented)   The method as recited in claim 1, further comprising traversing the second set of addresses to find a second element of the computer network and transferring the data to the second element of the computer network and an indication of at least a second portion of the addresses remaining in the second set that have not been traversed.

4.   (Original)   The method as recited in claim 1 wherein the indication of the at least a portion of the addresses remaining comprises a function used to perform that mapping.

5.   (Original)   The method as recited in claim 1 wherein the network comprises Internet Protocol addresses.

6.   (Original)   The method as recited in claim 5 wherein the network is coupled to the Internet.

7.   (Original)   The method as recited in claim 5 wherein the network comprises a subnet.

8.   (Original)   The method as recited in claim 1 wherein the element of the computer network comprises a computing device.

9.   (Currently Amended) A system for propagating data over a network, the system comprising:

a processor;

a memory device in communication with the processor and storing a sequential first set of network addresses;

a set of computer readable instructions stored on the memory device for carrying out a mapping of a range of addresses in the sequential first set of network addresses to a second set of addresses wherein the second set of addresses is a one to one mapping of the range of addresses in the first set and wherein the addresses in the second set are not in increasing address order, wherein the mapping comprises a function based on a primitive element selected using a primitive polynomial;

a set of computer readable instructions stored on the memory device for carrying out a traversing of a plurality of addresses in the second set of addresses to find another element of the network;

a set of computer readable instructions stored on the memory device for carrying out a dividing of a set of non-traversed addresses in the second set of addresses into a plurality of subsets of addresses, each subset of addresses comprising a respective range of addresses in the second set of addresses, wherein addresses in the second set of addresses that have been

traversed are excluded from the dividing of the set of non-traversed addresses and are
excluded from the subsets of addresses; and

  a set of computer readable instructions stored on the memory device for carrying out a
retransferring of the data to the another element of the network along with an indication of at
least <u>one of the subsets of addresses</u> ~~a portion of the addresses remaining in the second set by
specifying a range of addresses in the second set of addresses, wherein traversed addresses of
the second set of addresses are excluded from the specified range of addresses~~.

10. (Canceled)

11. (Previously Presented) The system as recited in claim 9 comprising a set of
computer readable instructions in communication with the memory device for carrying out a
traversing of the second set of addresses to find a second element of the computer network
and transferring the data to the second element of the computer network and an indication of
at least a second portion of the addresses remaining in the second set that have not been
traversed.

12. (Original) The system as recited in claim 9 wherein the indication of the at least a
portion of the addresses remaining comprises a function used to perform that mapping.

13. (Original) The system as recited in claim 9 wherein the network comprises
Internet Protocol addresses.

14. (Original) The system as recited in claim 13 wherein the network is coupled to
the Internet.

15. (Original) The system as recited in claim 13 wherein the network comprises a
subnet.

16. (Original) The system as recited in claim 9 wherein the element of the computer
network comprises a computing device.

17. (Currently Amended) A computer-readable storage medium bearing computer
readable instructions for propagating data over a network, the instructions comprising:

instructions for determining a sequential first set of network addresses;

instructions for mapping a range of addresses in the sequential first set of network address to a second set of addresses wherein the second set of addresses is a one to one mapping of the range of addresses in the first set and wherein the addresses in the second set are not in increasing address order, wherein the mapping comprises a function based on a primitive element selected using a primitive polynomial;

instructions for traversing a plurality of addresses in the second set of addresses to find another element of the network;

instructions for dividing a set of non-traversed addresses in the second set of addresses into a plurality of subsets of addresses, each subset of addresses comprising a respective range of addresses in the second set of addresses, wherein addresses in the second set of addresses that have been traversed are excluded from the division of the set of non-traversed addresses and are excluded from the subsets of addresses; and

instructions for transferring the data to the another element of the network along with an indication of at least one of the subsets of addresses ~~a portion of the addresses remaining in the second set by specifying a range of addresses in the second set of addresses, wherein traversed addresses of the second set of addresses are excluded from the specified range of addresses~~.

18.   (Canceled)

19.   (Previously Presented)   The computer-readable medium storage as recited in claim 17 comprising instructions for traversing the second set of addresses to find a second element of the computer network and transferring the data to the second element of the computer network and an indication of at least a second portion of the addresses remaining in the second set that have not been traversed.

20.   (Previously Presented)   The computer-readable storage medium as recited in claim 17 wherein the indication of the at least a portion of the addresses remaining comprises a function used to perform that mapping.

21.   (Previously Presented)   The computer-readable storage medium as recited in claim 17 wherein the network comprises Internet Protocol addresses.

22.   (Previously Presented)   The computer-readable storage medium as recited in claim 21 wherein the network is coupled to the Internet.

23.   (Previously Presented)   The computer-readable storage medium as recited in claim 21 wherein the network comprises a subnet.

24.   (Previously Presented)   The computer-readable storage medium as recited in claim 17 wherein the element of the computer network comprises a computing device.

25.   (Currently Amended) A method for distributed computing propagation, the method comprising:

    (a) determining a sequential first set of network addresses;

    (b) mapping a range of addresses in the sequential first set of network addresses to a second set of addresses wherein the second set of addresses is a one to one pseudo-random mapping of the range of addresses in the first set and wherein the addresses in the second set are not in increasing address order, wherein the mapping is a function based on powers of a primitive element selected using a primitive polynomial;

    (c) traversing a plurality of addresses in the second set of addresses to locate at least two other elements of the network;

    (d) subdividing the addresses of the second set of addresses that were not traversed in act (c) into a plurality of portions, wherein addresses of the second set of addresses that were traversed in act (c) are excluded from the portions;

    (e) transferring a set of computer readable instructions to the at least two other elements of the network to carry out a distributed computing function; and

    (f) transferring an indication of each portion of the addresses remaining in the second set by specifying a range of addresses in the each portion along with a set of computer-readable instructions for carrying out acts (a) through (e) to a respective element of the at least two other elements.

26.   (Canceled)

27.   (Original)   The method as recited in claim 25 wherein the indication of the at least a portion of the addresses remaining comprises a function used to perform that mapping.

28.   (Original)   The method as recited in claim 1 wherein the network comprises Internet Protocol addresses.

29.   (Previously Presented)   The method as recited in claim 25 wherein the network is coupled to the Internet.

30.   (Previously Presented)   The method as recited in claim 25 wherein the network comprises a subnet.

31.   (Original)   The method as recited in claim 25 wherein the element of the computer network comprises a computing device.